

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): A sputtering target comprising:

a target structure having a diameter of 100mm or more and an ultrafine crystal

structure with an average crystallite size of 1nm to 5nm, said average

crystallite size of 1nm to 5nm being uniform entirely throughout said

sputtering target;

said sputtering target being made of an alloy having a three or more component

system containing at least one element selected from the group consisting

of Zr, Pt, Pd, Fe, Co, and Cu as its primary component in an atomic ratio

of 50at% or more, said alloy possessing the requirements of a metallic

glass satisfying an atomic radius difference of 12% or more and negative

heat of mixing; and

said sputtering target having a relative density of at least 96.4% and being an

~~amorphous material obtained by sintering~~ made of sintered gas atomized

powder.

Claim 3 (previously presented): A sputtering target according to claim 2, wherein said average crystallite size of said target structure is 1nm to 2nm.

Claims 4-13 (canceled).

Claim 14 (previously presented): A sputtering target according to claim 3, wherein said primary component of said alloy is Zr, and wherein said alloy contains at least one element selected from the group consisting of Cu, Ni and Al.

Claim 15 (withdrawn): A sputtering target according to claim 3, wherein said primary component of said alloy is Pt, and wherein said alloy contains at least one element selected from a group consisting of Pd, Cu and P.

Claim 16 (withdrawn): A sputtering target according to claim 3, wherein said primary component of said alloy is Pd, and wherein said alloy contains at least one element selected from a group consisting of Cu, Ni and P.

Claim 17 (withdrawn): A sputtering target according to claim 3, wherein said primary component of said alloy is Fe, and wherein said alloy contains B and at least one element selected from a group consisting of Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W.

Claim 18 (withdrawn): A sputtering target according to claim 3, wherein said primary component of said alloy is Co, and wherein said alloy contains at least one element selected from a group consisting of Fe, Ta and B.

Claim 19 (withdrawn): A sputtering target according to claim 3, wherein said primary component of said alloy is Cu, and wherein said alloy contains at least one element selected from a group consisting of Zr and Ti.

Claim 20 (previously presented): A sputtering target according to claim 2, wherein said primary component of said alloy is Zr, and wherein said alloy contains at least one element selected from the group consisting of Cu, Ni and Al.

Claim 21 (withdrawn): A sputtering target according to claim 2, wherein said primary component of said alloy is Pt, and wherein said alloy contains at least one element selected from a group consisting of Pd, Cu and P.

Claim 22 (withdrawn): A sputtering target according to claim 2, wherein said primary component of said alloy is Pd, and wherein said alloy contains at least one element selected from a group consisting of Cu, Ni and P.

Claim 23 (withdrawn): A sputtering target according to claim 2, wherein said primary component of said alloy is Fe, and wherein said alloy contains B and at least one element selected from a group consisting of Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W.

Claim 24 (withdrawn): A sputtering target according to claim 2, wherein said primary component of said alloy is Co, and wherein said alloy contains at least one element selected from a group consisting of Fe, Ta and B.

Claim 25 (withdrawn): A sputtering target according to claim 2, wherein said primary component of said alloy is Cu, and wherein said alloy contains at least one element selected from a group consisting of Zr and Ti.

Claims 26- 36 (canceled).

Claim 37 (currently amended): A metallic glass sputtering target comprising:
a target structure having a diameter of 100mm or more and an ultrafine crystal structure with an average crystallite size of 1nm to 5nm, said average crystallite size of 1nm to 5nm being uniform entirely throughout said sputtering target;
said sputtering target being made of an alloy having a three or more component system containing Zr as its primary component in an atomic ratio of 50at% or more, said alloy containing at least one element selected from the group consisting of Cu, Ni and Al, and said alloy possessing the requirements of a metallic glass satisfying an atomic radius difference of 12% or more and negative heat of mixing; and
said sputtering target having a relative density of at least 96.4% and being ~~an amorphous material obtained by sintering~~ made of sintered gas atomized powder.

Claim 38 (previously presented): A metallic glass sputtering target according to claim 37, wherein said average crystallite size uniform entirely throughout said sputtering target is 1nm to 2nm.

Claim 39 (previously presented): A metallic glass sputtering target according to claim 37, wherein said alloy consists of Zr, Cu, Ni and Al.

Claim 40 (previously presented): A metallic glass sputtering target according to claim 37, wherein said alloy of said sputtering target is $\text{Zr}_{65}\text{Cu}_{17.5}\text{Ni}_{10}\text{Al}_{7.5}$.